

Remarks

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendment, claims 1-24 are pending in the application, with 1, 14, 15, 17, 19, 23 and 24 being the independent claims. Claims 1-3, 6, 7, 9, 14, 15, 17, 19, and 21-24 have been amended. These amendments are believed to introduce no new matter, and their entry is respectfully requested.

At the outset, Applicant wishes to thank the Examiner for detailed analysis of the drawings and the claims, and for the helpful suggestions related thereto. Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Specification

The Examiner objected to the specification requesting that reference numbers for related applications be updated with U.S. Patent Application numbers. The Examiner also noted several apparent typographical errors in the specification. Finally, the Examiner requested that the Applicant review the specification for other possible minor errors. Applicant thanks the Examiner for the suggested corrections.

Applicant has reviewed the specification and made a number of amendments thereto that Applicant believes addresses the Examiners objections. Specifically, Applicant found several erroneous reference numbers and made several corrections for consistency of description. These changes introduce no new matter and their entry is respectfully requested. In light of the amended specification, Applicant respectfully requests that the objections to the specification be reconsidered and withdrawn.

Objections to the Drawings

The Examiner objected to the drawings because of a lack of descriptive labels in conformance with Rules 1.84(n) and 1.84(o); because of a missing reference number contrary to Rule 1.121(d); and because of a missing feature contrary to Rule 1.83(a). Applicant again thanks the Examiner for the suggested corrections. Corrected drawings have been submitted herewith that Applicant believes addresses each of the Examiners objections. The corrected drawings introduce no new matter, and their entry is respectfully requested. In light of the corrected drawings, Applicant respectfully requests that the objections to the drawings be reconsidered and withdrawn.

Objections to the Claims

The Examiner provided a detailed list of objections to claims 1-24, along with suggested corrections. Applicant again thanks the Examiner for the detailed analysis of the claims and for the suggested corrections thereto. Generally, Applicant agreed to and implemented the Examiners suggested corrections. The exceptions are noted below.

The Examiner suggested that in claims 1 and 17, "the symbol" that is modeled should read "the buffered symbol." (Office Action, p. 5, ¶ 2.) Applicant respectfully disagrees. While the symbol that enters the buffer 158 and the symbol that enters the preprocessing model 32 are the same symbol, it is not the symbol in the buffer that is modeled, but rather the symbol entering the preprocessing module. For this reason, Applicant has not made the suggested change.

The Examiner suggested that the second occurrence of "a number of tones" in claims 1, 17, 19 and 24 should read "the number of tones." (Office Action, p. 5, ¶ 3.) Applicant respectfully disagrees. Because the data symbol will possibly have been

amended--e.g., if the modeled peak amplitude in the symbol exceeds the threshold,--the second occurrence of "a number of tones" may not be precisely identical to the first occurrence of "a number of tones," even though the input data will still be accurately represented. For this reason, Applicant has not made the suggested change.

Applicant has amended claims 1, 3 and 15 to address the Examiner's concern regarding "outputting *the buffered symbol*." (See Office Action, p. 5, ¶ 4.) It should now be clear that the symbol is buffered "*in a buffer*," and that it is "*the contents of the buffer*" that are output through the analog front end. Furthermore, Applicant has amended slightly the format of claims 1 and 15 to more clearly illustrate that the step of "replacing the buffered symbol with the regenerated symbol" falls within the conditional clause "if the modelled peak amplitude in the symbol exceeds the threshold." Applicant believes that these amendments more clearly illustrate features of the claimed invention and address the Examiner's objection.

The claim amendments to overcome the Examiner's objections introduce no new matter and their entry is respectfully requested. In light of the amended claims and the above discussion, Applicant believes the Examiner's objections to claims 1-24 have been addressed or rendered moot. For at least these reasons, Applicant respectfully requests that the objections to claims 1-24 be reconsidered and withdrawn.

Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 1-16 and 19-24 as being indefinite under 35 U.S.C. § 112(2). Applicant has addressed each of the Examiner's concerns as noted below, and requests that the rejections be reconsidered and withdrawn.

More specifically, the Examiner rejected claims 1, 14, 15, 19, 23 and 24 because certain terms therein lacked proper antecedent basis. (Office Action, p. 6, ¶ 2.) Applicant has amended these claims to correct antecedent basis and to more clearly express the recited features. These amendments introduce no new matter, and their entry is respectfully requested. In light of the above amendments, Applicant requests that the rejection of claims 1, 14, 15, 19, 23 and 24 be reconsidered and withdrawn.

The Examiner also rejected claim 4 as vague and indefinite because "it is unclear how much time is considered sufficient processing time to generate a symbol before regenerating that symbol." (Office Action, p. 6, ¶ 3.) The Examiner also could not find support in the specification for the claimed feature. Applicant points the Examiner to page 23 of the specification, lines 11-19 for support of this claimed feature.

Applicant respectfully disagrees that claim 4 is vague or indefinite. If a determination whether there is sufficient processing time is made, this feature would be present; if no determination is made, then the feature is not present. As stated in the specification, "statistical analysis based on the exact peak-reduction factor which is aimed at will allow a characterization of the actual performance margin needed in a particular system design." (Application, p. 23, ll. 8-11.) Determining actual amount of time required to regenerate the symbol and determining whether there is sufficient processing time to complete the regeneration would be well within the knowledge of the skilled artisan. For at least these reasons, Applicant respectfully requests that the rejection of claim 4 be reconsidered and withdrawn.

The Examiner rejected claim 22 because the phrase "wherein the modeling unit is a further instance of the preprocessing module" was not understood. (Office Action, p.

6, ¶ 5.) Applicant has amended claim 22 to clarify this feature. The amendment introduces no new matter and its entry is respectfully requested. Applicant requests that the Examiner reconsider and withdraw the rejection of claim 22.

The Examiner rejected independent claims 19 and 24 because they are apparatus claims that include a method to carry out steps by the regeneration control system. (Office Action, p. 6, ¶ 3.) Applicant has amended independent claims 19 and 24 so that the style is consistent throughout. The amendment introduces no new matter and its entry is respectfully requested. Applicant requests that the Examiner reconsider and withdraw the rejection of independent claims 19 and 24.

Rejections Under Double Patenting

The Examiner provisionally rejected claims 1-19 and 23-24 under the judicially created doctrine of double patenting over claims 1-5, 9-20, 23-25 and 27 of co-pending U.S. Patent Application No. 09/921,758. Applicant submits herewith a terminal disclaimer over U.S. Patent Application No. 09/921,758. Accordingly, the rejection of claims 1-19 and 23-24 under the judicially created doctrine of double patenting has been fully accommodated and should be withdrawn.

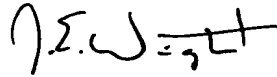
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jon E. Wright
Attorney for Applicant
Registration No. 50,720

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

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